



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/508,886

09/23/2004

Masayuki Adachi

5404/91

3640

757 7590 06/04/2007  
BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60610

EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

06/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/508,886

Applicant(s)

ADACHI ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The amendment filed on 4/23/2007 has been entered. The examiner has withdrawn the 35 USC 112 rejection of claims 1-3 based on the amendment to claim 1.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,348,796 to Ichibori et al. (hereinafter referred to as Ichibori) in view of USPN 6,335,093 to Mori et al. (hereinafter referred to as Mori).

Regarding claims 1-3, Ichibori discloses a flame resistant union fabric obtained by co-weaving: (A) a fiber yarn comprising 30% to 70% by weight of the union fabric, which has as a principal component, a halogen-containing flame resistant fiber including an antimony compound 25 parts to 50 parts in an acrylic based copolymer 100 parts consisting of acrylonitrile 30% to 70% by weight, a halogen-containing vinyl based monomer 30% to 70% by weight, and a vinyl based monomer copolymerizable therewith 0% to 10% by weight; and (B) a yarn comprising 70% to 30% by weight of the union fabric, consisting of a cellulosic fiber (see entire

Art Unit: 1771

document including column 2, lines 3-16, column 3, lines 6-17, column 5, lines 17-30, and claims 1-13).

Ichibori discloses that yarn (B) may consist of cellulosic fiber (column 4, lines 59-68 and claims 1-13), but Ichibori does not appear to mention the use of a compound yarn (B) consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C. Mori discloses that it is known in the cellulosic fiber woven fabric art to improve weft bar, appearance, dimensional stability, and strength by using a compound yarn consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C (see entire document including column 1, lines 15-27, column 2, line 59 through column 3, line 3, column 5, lines 15-37, column 8, lines 49-56, column 20, lines 43-45, and column 23, lines 32-36). It is noted that Mori specifically mentions the use of nylon 6 and nylon 66 (column 5, lines 14-20) which each have a melting temperature of 200°C to 400°C (see current specification page 8, lines 18-23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cellulosic yarns from compound yarns consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C, as taught by Mori, because the compound yarns would improve weft bar, appearance, dimensional stability, and strength and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

The prior art does not specifically disclose that the resulting fabric would be flame resistant to an extent sufficient to pass France's Class M1 in the NF-P 92-503 Combustion Test, but considering that the fabric taught by the applied prior art is identical to the claimed fabric, the

Art Unit: 1771

fabric taught by the applied prior art appears to be inherently flame resistant to an extent sufficient to pass France's Class M1 in the NF-P 92-503 Combustion Test.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claim 2, Ichibori discloses the cellulosic fiber may be cotton, rayon, acetate, or the like (column 4, line 59 through column 5, line 3). In addition, Mori discloses that it is known in the art to use cellulosic filaments such as polynosic or cupro (column 4, lines 54-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cellulosic fiber from any suitable cellulosic material, such as polynosic or cupro, because they are functionally equivalent viable alternatives to the cellulosic fibers disclosed by Ichibori and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 3, Mori discloses the use of polyamide fibers (column 5, lines 14-20).

***Response to Arguments***

4. Applicant's arguments filed 4/23/2007 have been fully considered but they are not persuasive.

The applicant asserts that a comparison between Example 1 and Comparative Example 2, in the current specification, illustrates the unexpected increase in flame resistance. The examiner respectfully disagrees. Modifying Ichibori as taught by Mori would result in one of three events:

- a) a fabric with better flame resistance
- b) a fabric with worse flame resistance
- c) a fabric with the same flame resistance.

Therefore, the occurrence of one of the three events is not unexpected as asserted by the applicant, rather, the occurrence of one of the three events is expected. The applicant has failed to show, or attempt to show, that specific occurrence of event (a) is unexpected or that the occurrence of event (a) is unexpected to a level sufficient to rebut prima facie obviousness.

In addition, USPN 5,587,118 to Mallonee discloses that nylon 6 and nylon 66 are flame retardant (column 2, lines 24-30). Therefore, it would be expected that the addition of nylon 6 or nylon 66, as taught by Mori, would increase the flame resistance of the fabric.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

Art Unit: 1771

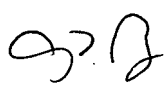
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

 5/25/07  
ANDREW PIZIALI  
PRIMARY EXAMINER